



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/822,619 | 03/30/2001 | David A. Kumpf | 10011119-1 | 7117 |

7590 06/22/2005
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

GOLD, AVI M

ART UNIT PAPER NUMBER

2157

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/822,619 | KUMPF ET AL. | |
| | Examiner | Art Unit | |
| | Avi Gold | 2157 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

PD

DETAILED ACTION

This action is responsive to the amendment filed on May 11, 2005. Claims 1, 7, 9, 10, 13-16, 18-20, 23, and 24 were amended. Claims 1-5 and 7-24 are pending.

Response to Amendment

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 12, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, U.S. Patent No. 6,711,626 further in view of Blumenau et al., U.S. Patent No. 6,438,595.

Okada teaches the invention substantially as claimed including a composite device which comprises at least two devices and in which at least one of the devices controls the other (see abstract).

As to claims 1, 15, and 20, Okada teaches a method, system, and computer program product of assigning a predetermined maximum number of logical ports to respective peripheral devices physically connected to a server in a network having client computers with client software, wherein the respective peripheral devices are connected to one or more physical port interfaces, the assigned logical ports enabling client

software to communicate with the peripheral devices regardless of the particular physical port interface the peripheral device is connected to, the method comprising the steps of:

the server initially assigning a logical port identification of an available unassigned one of the logical ports for a peripheral device that is connected to a physical port interface of the server and storing said logical port identification and said unique identification information in memory (col. 2, lines 25-44, Okada discloses logical channels linked to a physical connector);

the server thereafter directing communications for respective peripheral devices from client computers to said assigned logical port for such peripheral devices, wherein the communications are executed utilizing the client software (col. 13, lines 30-41, Okada discloses commands sent to devices based on respective logical channels).

Okada fails to teach the limitation further including the server querying, responsive to a predetermined event, a peripheral device that is connected to the server by a physical port interface for information which identifies the peripheral device, wherein said peripheral device identification information comprises one or more of the manufacturer, model name, model number and serial number of the peripheral device; and the peripheral device communicating said identification information to the server.

However, Blumenau teaches a data processing network in which a multiplicity of host processor are connected to shared resources (see abstract). Blumenau teaches the use of the server querying, responsive to a predetermined event, a peripheral device that is connected to the server by a physical port interface for information which

uniquely identifies the peripheral device, wherein said peripheral device identification information comprises at least the manufacturer's serial number of the peripheral device and the peripheral device communicating said identification information to the server (col. 6, lines 23-48, Blumenau discloses a switch control computer instructed to respond to a name server request involving storage ports, the response including the manufacturer's serial number of a device connected to a port).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Okada in view of Blumenau to use a peripheral device connected through logical and physical ports that sends identification information to the server. One would be motivated to do so because the serial number of the device ensures that the identifier is unique (col. 6, lines 32-37).

Regarding claim 2, Okada teaches a method as defined in claim 1 wherein the peripheral devices are connected to the server via a physical parallel port interface (col. 10, lines 62-67, col. 11, lines 1-6, Okada discloses a scanner and printer connected through parallel).

Regarding claim 3, Okada teaches a method as defined in claim 1 wherein the peripheral devices are connected to the server via a physical Universal Serial Bus interface (col. 8, lines 42-51, Okada discloses USB connecting a copier and a computer).

Regarding claim 4, Blumenau teaches a method as defined in claim 1 wherein said predetermined event is the initialization of the server (col. 6, lines 23-48).

Regarding claim 5, Okada teaches a method as defined in claim 1 wherein said predetermined event is the connection of a previously unconnected peripheral device to the server (col. 5, lines 53-67, col. 6, lines 1-5, Okada discloses connecting the device to a host).

Regarding claim 12, Blumenau teaches a method as defined in claim 1 wherein said memory is a non-volatile memory (col. 4, lines 11-23, Blumenau discloses the use of external memory such as magnetic disk drive).

3. Claims 7-11, 13, 14, 16-19, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada and Blumenau further in view of Fujitsuka et al., U.S. Patent No. 5,825,866.

Okada teaches the invention substantially as claimed including a composite device which comprises at least two devices and in which at least one of the devices controls the other (see abstract). Blumenau teaches the invention substantially as claimed including a data processing network in which a multiplicity of host processor are connected to shared resources (see abstract).

As to claims 7 and 16, Okada and Blumenau teach the method and system of claims 1 and 15.

Okada and Blumenau fail to teach the limitation further including the method and system as defined in claims 1 and 15 wherein said logical port identification and said unique identification information are stored in a table having said predetermined maximum number of logical port entries.

However, Fujitsuka teaches a private electronic exchange apparatus for use in offices and enterprises (see abstract). Fujitsuka teaches the use of logical port identification and identification information stored in a table having a predetermined maximum number of logical port entries (col. 1, lines 19-26, Fujitsuka discloses an allotment of port numbers for a table that links logical port numbers corresponding to respective physical port numbers).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Okada and Blumenau in view of Fujitsuka to use logical port identification and identification information stored in a table having a predetermined maximum number of logical port entries. One would be motivated to do so because the table would allow for efficient tracking of related logical and physical ports along with peripheral devices.

Regarding claims 8, 17, and 21, Fujitsuka teaches a method, system, and program as defined in claims 7, 16, and 20 wherein the status of each of said maximum logical port entries is maintained in said table, with logical ports that are assigned

Art Unit: 2157

having an assigned status and logical ports that are unassigned having a free status (col. 1, lines 27-30, Fujitsuka discloses that the relationship between the physical port numbers and the logical port numbers stored in the table can arbitrarily be changed).

Regarding claims 9, 18, and 22, Fujitsuka teaches a method, system, and program as defined in claims 8, 17, and 21 wherein when the server, responsive to said predetermined event, queries peripheral devices that are then connected to the server, compares said unique identification information received therefrom with said information maintained in said table and utilizes said assigned logical ports for directing communications to the connected peripheral devices in response to a positive comparison (col. 6, lines 25-40, Fujitsuka discloses detecting changes in the logical ports and directing communications if devices are connected properly).

Regarding claims 10, 19, and 23, Fujitsuka teaches a method, system, and program as defined in claims 8, 18, and 22 wherein when the server, responsive to said predetermined event, queries peripheral devices that are then connected to the server, compares said unique identification information received therefrom with said information maintained in said table and fails to detect a positive comparison, performs the following steps with respect to each peripheral device for which a positive comparison is not found:

the server searches the table to determine if the number of logical port entries is less than the maximum number of entries, indicating that one or more logical port

Art Unit: 2157

entries are available (col. 1, lines 19-26, col. 6, lines 66-67, col. 7, lines 1-12, Fujitsuka discloses a logical port number changing section);

the server assigns an available logical port identification to an unassigned peripheral device and stores said logical port identification, said identification information and an assigned status in an entry in the table in response to a logical port being available (col. 1, lines 19-30);

the server suspends processing of the unassigned peripheral device for a predetermined time period if there is no logical port available (col. 1, lines 19-20, col. 6, lines 25-40);

the server resumes processing after said predetermined time period and searches said table for reserved status entries and selects a reserved entry that closely matches, according to predetermined criteria, the unique identification information of the peripheral device that is unassigned and assigns the unassigned peripheral device to the logical port (col. 1, lines 19-20, col. 6, lines 25-40).

Regarding claim 11, Fujitsuka teaches a method as defined in claim 10 wherein unassigned peripheral devices are placed in a queue for subsequent processing (col. 5, lines 57-65, Fujitsuka discloses the changing of a logical port).

Regarding claim 24, Blumenau discloses a product as defined in claim 23 where said identification of information that approximates said identification information comprises at least identical manufacturer and model information (col. 6, lines 23-48).

4. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, U.S. Patent No. 6,711,626, in view of Blumenau et al., U.S. Patent No. 6,438,595, further in view of Fujitsuka et al., U.S. Patent No. 5,825,866.

Okada teaches the invention substantially as claimed including a composite device which comprises at least two devices and in which at least one of the devices controls the other (see abstract).

As to claim 13, Okada teaches a method of assigning a predetermined maximum number of logical ports to respective peripheral devices physically connected to a server in a network having client computers with client software, wherein the respective peripheral devices are adapted to be connected to one or more physical port interfaces, the assigned logical ports enabling client software to communicate with the peripheral devices regardless of the particular physical port interface the peripheral device is connected to, the method comprising the steps of:

the server storing assigned logical port identification and said identification information in memory (col. 2, lines 25-44);

the server thereafter directing communications for respective peripheral devices from client computers to said assigned logical port for such peripheral devices wherein said communications are executed utilizing the client software (col. 13, lines 30-41).

Okada fails to teach the limitation further including the server querying, responsive to a predetermined event, a peripheral device that is connected to the server by a physical port interface for information which uniquely identifies the peripheral

Art Unit: 2157

device, wherein said peripheral device identification information comprises at least the manufacturer's serial number of the peripheral device; the peripheral device communicating said unique identification information to the server; and the server placing the unassigned peripheral devices in a queue for subsequent assignment of unassigned logical ports by manual assignment.

However, Blumenau teaches a data processing network in which a multiplicity of host processor are connected to shared resources (see abstract). Blumenau teaches the use of the server querying, responsive to a predetermined event, a peripheral device that is connected to the server by a physical port interface for information which uniquely identifies the peripheral device, wherein said peripheral device identification information comprises at least the manufacturer's serial number of the peripheral device and the peripheral device communicating said identification information to the server (col. 6, lines 23-48, Blumenau discloses a switch control computer instructed to respond to a name server request involving storage ports, the response including the manufacturer's serial number of a device connected to a port).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Okada in view of Blumenau to use a peripheral device connected through logical and physical ports that sends identification information to the server. One would be motivated to do so because the serial number of the device ensures that the identifier is unique (col. 6, lines 32-37).

Blumenau and Okada fail to teach the limitation further including the server placing the unassigned peripheral devices in a queue for subsequent assignment of logical ports by manual assignment.

However, Fujitsuka teaches a private electronic exchange apparatus for use in offices and enterprises (see abstract). Fujitsuka teaches the changing of a logical port (col. 5, lines 57-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Okada and Blumenau in view of Fujitsuka to use a queue for assignment of logical ports. One would be motivated to do so because the queue would allow for efficient assignment of ports.

Regarding claim 14, Fujitsuka discloses a method as defined in claim 13 wherein said logical port identification and said unique identification information are stored in a table having said predetermined maximum number of logical port entries, said logical ports that are assigned having an assigned status and logical ports that are unassigned having a free status (col. 1, lines 19-30).

Response to Arguments

5. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

6. In response to applicant's argument that Fujitsuka is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or,

if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, only certain parts of Fujitsuka were used in the rejection and those parts are pertinent to the claims they were applied to. Fujitsuka involves physical and logical ports as do the other prior art references.

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant argues that col. 6, lines 25-40 of Fujitsuka does not disclose the querying of peripheral devices in claim 9. This was already disclosed in claim 1 by the 103 combination between the first two references.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,208,644 to Pannell et al.

U.S. Pat. No. 6,256,305 to Chau et al.

U.S. Pat. No. 6,272,560 to Kenton et al.

U.S. Pat. No. 6,377,584 to Kano et al.

U.S. Pat. No. 6,658,512 to Gokulrangan.

U.S. Pat. No. 6,694,354 to Elg.

U.S. Pat. No. 6,587,898 to Larson et al.

U.S. Pat. No. 6,603,744 to Mizutani et al.

U.S. Pat. No. 5,896,546 to Monahan et al.

U.S. Pat. No. 5,901,325 to Cox.

U.S. Pat. No. 6,557,049 to Maloy et al.

U.S. Pat. No. 4,574,284 to Feldman et al.

U.S. Pat. No. 6,697,073 to Kadota

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avi Gold whose telephone number is 571-272-4002. The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Avi Gold

Patent Examiner

Art Unit 2157

AMG


ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100